

## What is Claimed is:

- [c1] Apparatus comprising:
  - a body which consumes power;
  - a battery which supplies power to the body through a power line by discharging after being charged;
  - a high-capacity capacitor connected to the power line in parallel with the battery;
  - a switch for disconnecting or connecting the high-capacity capacitor from or to the power line by a circuit; and
  - a controller for controlling operations of the switch.
- [c2] Apparatus according to claim 1, wherein the controller controls operations of the switch to disconnect the high-capacity capacitor by a circuit when the battery is disconnected from the body.
- [c3] Apparatus according to claim 1, wherein the controller controls operations of the switch to disconnect the high-capacity capacitor by a circuit when the body is powered off and/or the body is kept in a small-power-consumption mode.
- [c4] Apparatus according to claim 1, wherein the high-capacity capacitor and the switch are integrated so that they can be set to the body.
- [c5] Apparatus comprising:
  - a body which consumes power;
  - a battery which supplies power to the body through a power line by discharging after being charged;
  - a peak-power supply unit connected to a power line and which supplies power to the body in parallel with the battery when a peak power demand is generated in the body; and
  - a disconnection unit for disconnecting the peak-power supply unit from the power line when the body is kept in a predetermined small-power-consumption mode and/or the body is powered off.
- [c6] Apparatus according to claim 5, wherein the peak-power supply unit is a high-capacity capacitor disposed in the body.

[c7] Apparatus comprising:

- a computer;
- a battery connected with said computer and which supplies power to said computer by being discharged after being charged;
- a peak-power supply unit connected in parallel with said battery cell and supplying peak power demands generated in said computer; and
- a leak-current prevention unit for preventing a leak current circulating from said battery to said peak-power supply unit.

[c8] Apparatus according to claim 7, further comprising a connection determination unit for determining that the battery is not connected to the system, wherein said leak-current prevention unit disconnects said peak-power supply unit from said battery by a circuit based on the determination that the battery is not connected to said computer by said connection determination unit.

[c9] Apparatus according to claim 7, further comprising a recognition unit for recognizing that said computer is kept in a small-power-consumption mode, wherein said leak-current prevention unit disconnects said peak-power supply unit from said battery by a circuit based on the recognition that the system is kept in the small-power-consumption mode by said recognition unit.

[c10] Apparatus according to claim 9, wherein the small-power-consumption mode recognized by said recognition unit denotes any one of the standby state, suspended state, and soft-off state.

[c11] Apparatus comprising:

- a computer;
- a battery connected to said computer and which supplies power to said computer, said battery comprising a battery cell for supplying power by discharging after being charged;
- a capacitor connected to a power line which supplies power to said computer in parallel with said battery cell;
- an on/off switch which turns on and off the connection of said capacitor to the power line; and
- a CPU which controls the switch based on a connection state with said

computer and/or a power-consumption state of said computer.

- [c12] Apparatus according to claim 11, further comprising a controller for transmitting a command about a power consumption state to the CPU.
- [c13] Apparatus according to claim 11, further comprising a pull-up resistance for the CPU of the battery to recognize the connection state with the system.
- [c14] An intelligent battery connected to an electrical apparatus to supply power to the electrical apparatus by discharging after being charged, comprising:
  - a peak-power supply unit set separately from a cell for supplying power to supply a peak power generated by the electrical apparatus; and
  - a leak-power prevention unit for preventing the leak current generated by the peak-power supply unit.
- [c15] The intelligent battery according to claim 14, wherein the leak-current prevention unit disconnects the peak-power supply unit by a circuit based on a connection state with a body and/or an operation mode of the body.
- [c16] An intelligent battery set to an electrical apparatus to supply power to the electrical apparatus by discharging after being charged, comprising:
  - a cell for supplying power through a predetermined power line; and
  - a high-capacity capacitor connected to the power line in parallel with the cell under a predetermined condition.
- [c17] The intelligent battery according to claim 16, further comprising:
  - a switch for disconnecting or connecting the high-capacity capacitor from or to the power line by a circuit; and
  - a CPU for controlling operations of the switch.
- [c18] The intelligent battery according to claim 17, wherein the CPU detects a state in which the cell is not connected to the electrical apparatus or a state in which it is unnecessary to supply a peak power to the electrical apparatus when the cell is set to the electrical apparatus and controls operations of the switch based on a detected state.
- [c19] A method comprising the steps of:

supplying power from a cell of a battery to a power consuming body under the steady state of power demand in the body; supplying power to the body from a capacitor connected in parallel to the cell of the battery when a peak power demand is generated in the body; and disconnecting the capacitor from the battery when the battery is not connected to the body and/or when the power demand from the body is less than the peak power demand.

[c20] A method comprising the steps of:

- supplying power to a power consuming body from a battery and a high-capacity capacitor connected in parallel with the battery;
- determining whether it is unnecessary to supply a peak power demand from the battery to the body; and
- disconnecting the high-capacity capacitor from the battery by a circuit when a state in which it is unnecessary to supply a peak power demand is determined.

[c21] The power-supply control method according to claim 20, wherein whether it is unnecessary to supply a peak power demand is determined by recognizing a state of the body based on a command transmitted from the body to the battery.